REDCap
Advanced Surveys (RC-304)
Learning objectives

• Advanced survey setup
• Distribution
• Management
• Example of uses
• Twilio (texting)
• Action tags
• Best practices
What is a survey in REDCap terms?

A different way of doing data entry in your project
General survey models

Simple single survey
(Covered in the "Intro to REDCap survey" class)
- Quick and easy to setup
- Single record per response
- Great for getting started with surveys

Chained surveys
(Covered in the "Intro to REDCap survey" class)
- Link multiple surveys together
- "Skip" over certain surveys
- Multiple survey responses linked to a single record

Longitudinal surveys
- Longitudinal mode turned on
- Repeat the same survey in multiple events
- Multiple survey responses per event per record
- Takes a bit more time and testing to setup
- Great for longer term studies
Longitudinal surveys

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Longitudinal surveys

Setup steps for longitudinal surveys

► Builds on the simple survey and chained survey examples
► Define per event how you want your surveys to run
► First event works similarly to a chained survey
► The first survey in any follow up events can and will have to get distributed in different ways:
  ▶ Manually (e.g. in-clinic)
  ▶ Via email invite (or automated survey invitations aka ASI)
  ▶ Via text invite
► After the initial survey in each event, you can have your participant run through the surveys via auto-continue or survey queue.
 setup ASI – "To" emails

- REDCap needs to know where to send an invitation
- Defined in one of two places:
  - Participant list
    - Use when you have a list of emails beforehand
  - Define email (found in project setup)
    - Use when you don't know emails upfront
- Needs to be a text field with an email validation
- Simply calling it "email" is not enough
- Only 1 email per record allowed
### Longitudinal surveys

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#### Setup ASI – Crafting your message

- Select a "From" email
  - You can add up to 3 emails to your account
- Define a subject line
  - Short and to the point is the best
- Define the invitation body
  - REDCap will add the a links automatically at the bottom of the page
  - HTML is allowed
    - Logo's or hyperlinks
  - Piping is allowed and encouraged
    - Try at least to add someone's name
    - Helps with the spam filters
Setup ASI – Triggering invites

- REDCap schedules an invite the moment the defined trigger becomes true
- Three main ways of triggering similar to survey queue
  - Survey completion
    - e.g. After consent survey is completed
  - Branching logic
    - e.g. After consent equals yes ([consent]=1)
  - Combination of the two
    - e.g. After the consent survey is completed and consent equals yes
- Bonus: Ensure logic is still true upon send
  - Advanced feature that has some interesting applications.
**Longitudinal surveys**

**Setup ASI – Timing**

- **Two points of timing:**
  - Initial survey invitation
  - Specific date and time
  - After a specific interval of time (from the moment of trigger)
  - "On the next …"

- **Reminders**
  - Up to 5 reminders
  - Set schedule (every 3 days, mondays)
  - Remaining reminders get deleted when their survey is completed

- **Pro tip:** send things on Tuesday morning 7 a.m.
Longitudinal surveys

Distribution – Fire & Forget

► Setup your entire project to "run" itself with minimal oversight

► Great for projects with limited manpower or that run for a long time

► Build all your ASI's with survey complete and logic triggers
  ▶ Single trigger point model
    ▶ i.e. everything gets scheduled based on 1 trigger but with different delays
  ▶ Cascading model
    ▶ Each survey completed triggers another

Uses

Setup

Distribution

Fire and Forget

Fuzzy triggers

Kill switches

Interplay with repeatable forms
# Longitudinal surveys

## Distribution – Fuzzy triggers

- You want to automate things, but you don't know upfront when certain events take place
  - e.g. Trigger a set of surveys after a ED visit
  - e.g. Trigger surveys after a child has had a concussion in a football match
- Instead of survey complete trigger, you trigger things of a variable.
  - Build a special form that contain those triggers
    - Checkboxes for immediate triggers
    - Date variables for fuzzy time triggers
      - e.g. Send survey 2 weeks before visit
  - Filled out by study personnel
  - Allows for more control

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[Image of a calendar with pins indicating dates]
### Longitudinal surveys

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### Distribution – Kill Switches

- Flip side of a fuzzy trigger
- Disables scheduled surveys and reminders
- Build a special form (can be combined)
- Add branching logic to the ASI
  - e.g. \([\text{kill}(1)]<>1\)
  - Turn on "Ensure logic is still true"
- Has to be managed by study personnel
- Secondary use:
  - "Reset" your survey invitations
  - Update invite text
  - REDCap auto filters completed surveys
Longitudinal surveys

Distribution – Repeatable forms

► Repeatable form functionality is still very new
► You can't setup ASI's for repeatable events (yet)
► You can have respondents repeat the same survey over and over
► Setting is located in the survey settings of a survey, but only after you made the survey repeating
► Use at your own risk
  ► Recommendation: Test, test and test again
Gift cards Models

Gift cards are tricky
• Potential for scamming is high
• Build in at least one manual step
• Talk to us if you want more advice

Setup
• Create a "gift card" instrument
• Includes read only gift card field plus instructions
• Setup ASI to send out when gift card field is not empty

Running a gift card model
• Tell your respondents that you will distribute the gift cards at a set time, but not instantaneously
• Build a report that displays all records eligible for a gift card, but that haven't had one yet
• Download the report in csv raw format, plug in codes and reupload with the data import tool
Texting & Robo-calling

Twilio
- Send invites as text via a third party service ([www.twilio.com](http://www.twilio.com))
- Will have to create an account with Twilio
- Costs money ([https://www.twilio.com/sms/pricing](https://www.twilio.com/sms/pricing))

Texting / Robo calling options
- Send survey link via text
- Start survey as robo-call
- Send text to invite to robo call
  (respondent calls to start survey)
- Send text to invite to robo call
  (service calls when respondent replies by text)
- Send survey as text conversation (inherently unsecure)

Setup
- Found in the project setup page
Action Tags

Useful Action tags for surveys

• @HIDDEN-SURVEY
  • Handy for markup by study team
• @READ-ONLY
  • For displaying preloaded data
• @LATITUDE & @LONGITUDE
  • For capturing someone's location
• @NOW & @TODAY
  • For creating a "start" time stamp
  • Often combined with @HIDDEN
• @NONEOFTHEABOVE
  • To create an option in a checkbox that unchecks all other options
• @RANDOMORDER
  • To circumvent "multiple choice" bias
• @HIDECHOICE
  • To update options in an active survey